

ABSTRACT OF THE DISCLOSURE

A laser scanning unit mainly includes a semiconductor laser, a collimator, a micro electronic mechanic system (MEMS) oscillatory mirror, and an $f\theta$ lens or an $f\sin\theta$ lens. The MEMS oscillatory mirror is disposed between the collimator and the $f\theta$ lens to replace a conventional rotary polygonal mirror for controlling a direction in which laser beams are projected from the oscillatory mirror to the $f\theta$ lens. With the MEMS oscillatory mirror, the cylindrical lens may be omitted from the laser scanning unit and noises produced by the polygonal mirror rotating at high speed may be avoided. Moreover, the MEMS oscillatory mirror allows bi-directional scanning to therefore enable increased scanning frequency, simplified structure, and improved scanning efficiency.